



A Summary of Kentucky's and other U.S. States' Programs

WASTE TIRE PROGRAM COMPONENTS

Waste Tire Program Components

- Funding
- Permitting & Enforcement
- Tire Pile Abatement
- Amnesty and Ongoing Generation
- Market Development

Oxford Tire Pile #8 Westley CA 1999
Burtynsky





How states raise money for their scrap tire programs

Funding

Funding



- ◎ Two types of programs:
 - Free market
 - State focuses on pile abatement, market development, permitting, enforcement
 - Fee is lower, such as \$1 per new tire

Funding

● Free Market:

- Waste tire: Consumer to Retailer to Transporter to Processor to Market
- Successfully used by most states, except where political interference
 - NY & CA skipped TDF & forced crumb rubber
 - CO relied on monofills
 - All are re-planning



Funding

● Free Market:

- Retailers charge about \$2.00
- Transporters charge about \$1.50
- Processors charge about \$1.00
- Processors sell product
- \$1 fee is additional and goes to state



Funding



- ◎ Two types of programs (Con'td):
 - State-run:
 - State pays set fees to transporters and processors; as well as other state program features
 - Fee is higher such as \$1.35 per tire in TN, \$2 for auto and \$3 for truck tires in OK, 2% (\$1.50-2.50) in NC

Funding

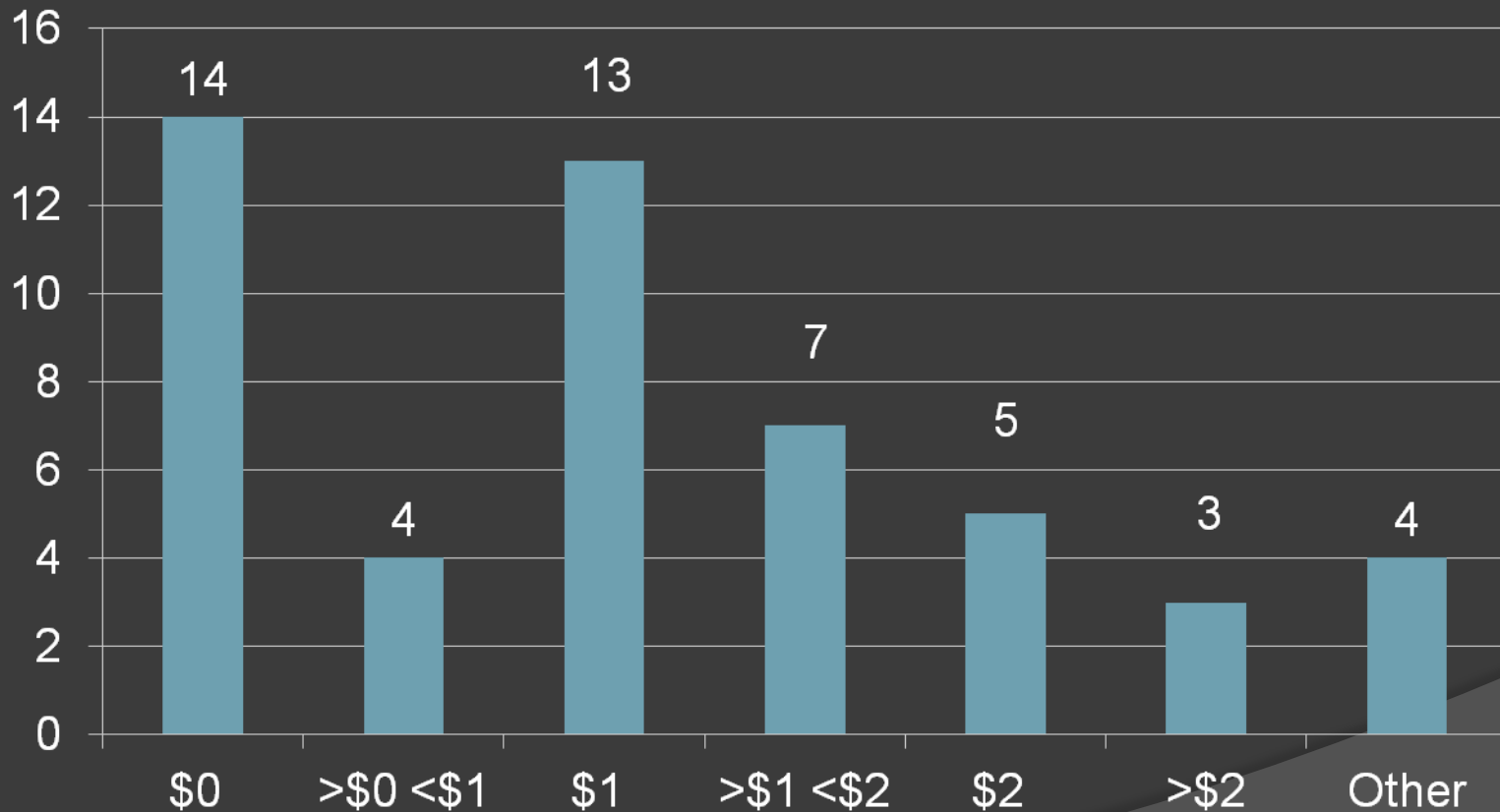


- ◎ Two types of programs (Con'td):
 - State-run (Con'td):
 - TX spent \$70M processing tires from piles, incurred \$50M unfunded liability, and then stopped program. Used General Fund to clean up.
 - NC, OK & LA are short funds periodically since more tires collected than generated (despite tight manifest system)

Funding: State Fees

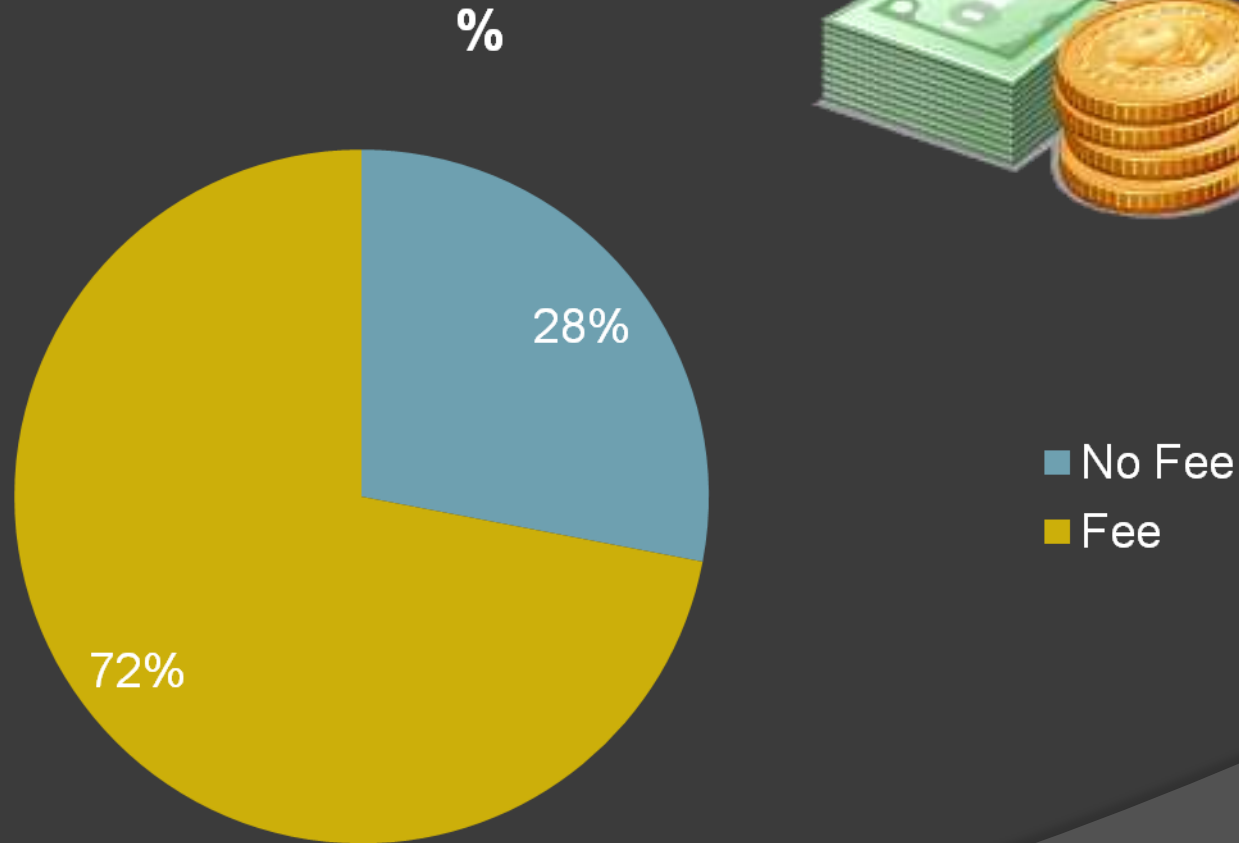


States

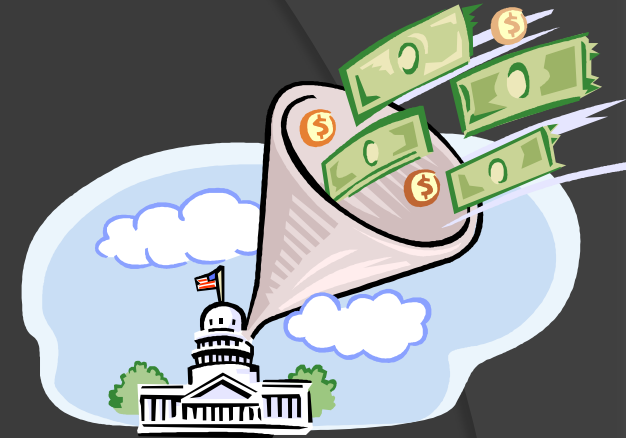


KY DEP, 2009

Funding: State Fees

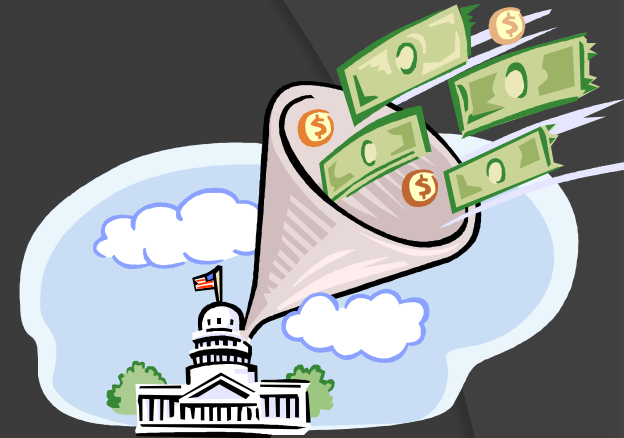


Funding: Collection



- Tire Retailer (30 states)
 - KY Dept. of Revenue (DOR)
 - Most DOR's reimbursed on %
 - KY: \$50,000/yr. flat fee
 - KY collects \$2.6M of \$3.5M (74%)
 - Other states: RI 50% to FL 95%
 - Enforcement is necessary

Funding: Collection



- Tire Wholesaler (3 states, OH 78%, MS 88%)
- Annual Vehicle Registration (SD)
- New Car (\$4) or Truck (\$90) Title (WV)
- Used Car & Truck Transfer (WV, MI)

Funding: Use



- Restrict to waste tire programs
- In 2008, KY legislature swept \$500,000
- GA, NY, FL: Legislature routinely sweeps all or most funds for General Fund

Funding: Use

- SD: Transportation receives \$.
- Sweeping leads to public liability (less enforcement, more piles, mosquito-born illnesses)
- Non-tire use may lead to loss of political support for fee.





How states work with tire accumulators, transporters, processors, retailers & auto salvage yards to achieve compliance

Permitting & Enforcement

Permitting & Enforcement

⦿ KY:

- Registrations: Paid for by \$1/new tire Fee (Free to applicant)
- Compliance & Enforcement (Field Ops): Could be paid for by \$1 fee

⦿ Other States:

- ⦿ Fee
- ⦿ General Fund
- ⦿ Applicant pays cost
- ⦿ Enforcement for fee collection



Permitting & Enforcement

◎ KY Manifest:

- Starts at Tire Retailer
- Transporter
- Accumulator
- Processor returns copy to retailer to close loop



Permitting & Enforcement



- Other States:

- Retailer registration
- CA: Web-based (\$7M), has problems
- Quarterly or Annual Report Summary (FL) tracks tire movements



Cleaning up abandoned waste tires

Tire Pile Abatement

Tire Pile Abatement



- In 1991, KY had 10M tires in piles
 - All removed now
 - State will remediate newly discovered piles
 - Consider pre-selection of approved contractors

Tire Pile Abatement



- Other states:
 - Use enforcement for cost recovery
 - Piles and fires return when fee & program sunset

When Program Ends



- Los Reales
Landfill Tire
Fire Tucson
AZ 1989
Rick Wiley



Ongoing waste tire generation

Amnesties

Amnesties



- KY has ongoing amnesties
 - Very popular
 - Handled 13% of market in 2010 and 20% in 2011
 - Needs restricting to homeowners and farmers vs. retailers, auto salvage yards, truck tire dealers, out of state persons

Amnesties



Other states:

- Usually all free-market (majority) or all-government-run (AR, AZ, TN. NC. OK, LA)
- Amnesty is usually one-time event
- FL runs in counties with mosquito-bred illness alert
- Some Hybrid states
 - MS has 3 state-run collection centers
 - NE has county grant amnesty program (13 in 2010) (5-6-2010 *JournalStar.com*)

Amnesties

- Small grants to Counties to clean up dumped tires in 2011:
 - EEC awarded \$256,461 to 117 counties to dispose 249,312 tires
 - A total of \$351,000 was offered but \$94,539 was returned



Amnesties

● Pros

- Decreases unpermitted tire piles
- Useful to homeowners and farmers
- Recycled 17.8 million tires since 1998, or 31 loads for the *U.S.S. Nimitz*



Amnesties



⦿ Cons

- Undercuts free market
- Unfair to consumers and retailers who pay permitted haulers
- Attracts tires from businesses or out-of-state



Encouraging the free market through capitol project funding

Market Development

Market Development



- KY funds part of capitol construction so that use of tire derived products, such as Tire Derived Fuel (TDF), competes economically thereafter with its replaced fuel.

Market Development



- Funded as initial loan converted to grant based on actual tire usage.
- Avoids abuse such as:
 - Equipment paid for by one state being sent to another state
 - Granted systems never operating due to minor adjustment needs or management changes.

Market Development

● KY funded:

- OMU (2001) \$454,000 for 900,000 tires/yr. (about \$0.05 per tire)
- NewPage (Westvaco, 2007) \$750,000 for 3,750,000 tires (\$0.20 per tire)
- Kosmos (Lone Star & CEMEX) Tech assist only, <\$20,000 for 1.1 M tires/yr.
- Annual crumb rubber grants for playgrounds and athletic fields (not capital development)

OMU



Tire Derived
Fuel: Metering
Unit at
Owensboro
Municipal
Utilities (OMU)
(KY DEP)

OMU



Tire Derived Fuel:
TDF Pile at OMU
(KY DEP)

Crumb Rubber Market Development



- Playground Mulch: City of Carrollton (KY DEP)

Crumb Rubber Market Development



- Athletic Fields: Boyle Co. HS (KY DEP)

Market Development

- Reimbursement stops, market may stop unless other incentive arises:
 - Crumb rubber grants have helped Martin Tire (now Liberty) and Dalton Tire get into market
 - Schools report lower insurance premiums because of rubber mulch on playgrounds



Market Development



- Other states funded:
 - TDF transportation subsidy (OR & WI): Movements to out of state markets stopped when funding ceased
 - Shredders (OH): Recipients had little market knowledge, new markets did not develop
 - KY, FI, IA capital development best (TAG Resource Recovery).

Market Development



- Future (KY, crumb rubber):
 - Rubber pavements (testing, workshops, travel for instructors)
 - Auto parts
 - TDF sells for \$20-30 per ton, crumb rubber for \$0.12-0.18 per pound, or \$160-\$240/ton

Future Market Development

- Crumb Rubber Molded Products: (EPA Scrap Tire Work Group 2010)

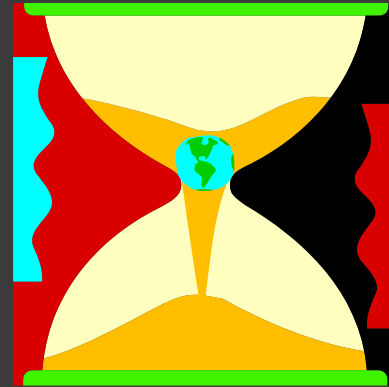


Future Market Development

- Rubberized Asphalt: Michelin Boulevard
Anderson County, SC (EPA WTWG 2010)



Typical Program Timeline



⦿ Early:

- Fight tire pile fires, abate piles
- Amnesties
- Permitting, Compliance

⦿ Later:

- ⦿ Market Development
- ⦿ Enforcement

Waste Tire Program Components

● Questions?

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